

The Quadratic Formula
Solving quadratic equations by the quadratic formula

A quadratic equation written in the form $ax^2 + bx + c = 0$ has the solutions

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Examples (pg. 515-517):

Solve:

$5x^2 + 8x = -3$ using the quadratic formula.

For the quadratic function given by $f(x) = 3x^2 - 6x - 4$ find all x for which $f(x) = 0$.

Solve: $x(x + 5) = 2(2x - 1)$

If $f(t) = 2 + \frac{7}{t}$ and $g(t) = \frac{4}{t^2}$, find all t for which $f(t) = g(t)$